

Currently Pending Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1.-30. (Canceled)

31. (Previously presented): An isolated and essentially homogenous polypeptide having the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

32. (Previously presented): An isolated and essentially homogenous polypeptide having cellulase activity and an amino acid sequence which has at least 95% identity to the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

33. (Previously presented): An isolated and essentially homogenous polypeptide having cellulase activity and amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

34. (Previously presented): An isolated and essentially homogenous polypeptide having cellulase activity and an amino acid sequence which has at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

35. (Previously presented): An enzyme extract preparation comprising a polypeptide having cellulase activity, wherein said polypeptide is selected from the group consisting of:

- (i) a polypeptide comprising the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35,
- (ii) a polypeptide having at least 95% identity to the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35,
- (iii) a polypeptide comprising the amino acid sequence encoded by the DNA insert contained in DSM 11026, DSM 11013, or DSM 11011,
- (iv) a polypeptide comprising amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and
- (v) a polypeptide having at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

36. (Previously presented): An enzyme extract preparation according to claim 35, wherein said polypeptide comprises the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

37. (Previously presented): An enzyme extract preparation according to claim 35, wherein said polypeptide has at least 95% identity to the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

38. (Previously presented): An enzyme extract preparation according to claim 35, wherein said polypeptide comprises the amino acid sequence encoded by the DNA insert contained in DSM 11026, DSM 11013, or DSM 11011.

39. (Previously presented): An enzyme extract preparation according to claim 35, wherein said polypeptide comprises amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

40. (Previously presented): An enzyme extract preparation according to claim 35, wherein said polypeptide has at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

41. (Previously presented): An enzyme extract preparation according to claim 35, wherein said enzyme extract preparation is obtained by a process comprising:

- (i) culturing a host cell transformed with the nucleic acid molecule comprising the nucleic acid sequence set forth in Figures 23A-C and SEQ ID NO: 34; and
- (ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

42. (Previously presented): An enzyme extract preparation according to claim 35, wherein said enzyme extract preparation is obtained by a process comprising:

(i) culturing a host cell transformed with a nucleic acid sequence encoding a polypeptide having cellulase activity and 95% identity to amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

43. (Previously presented): An enzyme extract preparation according to claim 35, wherein said enzyme extract preparation is obtained by a process comprising:

(i) culturing a host cell transformed with a nucleic acid sequence encoding amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

44. (Previously presented): An enzyme extract preparation according to claim 35, wherein said enzyme extract preparation is obtained by a process comprising:

(i) culturing a host cell transformed with a nucleic acid sequence encoding a polypeptide having cellulase activity and at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

45. (Previously presented): An enzyme extract preparation according to claim 35, wherein said polypeptide is isolated and essentially homogenous.

46. (Previously presented): An enzyme extract preparation according to claim 35, wherein said enzyme extract preparation has cellulase activity and comprises at least one cellulase of a fungal species belonging to a fungal genus selected from the group consisting of *Melanocarpus* and *Myriococcum*.

47. (Previously presented): An enzyme extract preparation having cellulase activity according to claim 46, wherein the fungal species is *Melanocarpus albomyces*, *Myriococcum albomyces* or *Myriococcum* sp. species represented by CBS 687.95.

48. (Previously presented): An enzyme extract preparation having cellulase activity according to claim 47, wherein the fungus is *Melanocarpus albomyces*, *Myriococcum albomyces* CBS 685.95 or *Myriococcum* sp. CBS 687.95.

49. (Previously presented): An enzyme extract preparation according to claim 35, wherein the enzyme extract preparation is liquid and has cellulase activity.

50. (Previously presented): An enzyme extract preparation according to claim 35, wherein the enzyme extract preparation is dry and has cellulase activity.

51. (Previously presented): An enzyme extract preparation according to claim 35, wherein the enzyme extract preparation has cellulase activity and further comprises a surface active agent.

52. (Previously presented): A method for biostoning comprising adding an enzyme preparation comprising a polypeptide having cellulase activity to cotton containing fabric or garments, wherein said polypeptide is selected from the group consisting of:

- (i) a polypeptide comprising the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35,
- (ii) a polypeptide having at least 95% identity to the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35,
- (iii) a polypeptide comprising the amino acid sequence encoded by the DNA insert contained in DSM 11026, DSM 11013, or DSM 11011,
- (iv) a polypeptide comprising amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and
- (v) a polypeptide having at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

53. (Previously presented): A method according to claim 52, wherein said polypeptide comprises the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

54. (Previously presented): A method according to claim 52, wherein said polypeptide has at least 95% identity to the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

55. (Previously presented): A method according to claim 52, wherein said polypeptide comprises the amino acid sequence encoded by the DNA insert contained in DSM 11026, DSM 11013, or DSM 11011.

56. (Previously presented): A method according to claim 52, wherein said polypeptide comprises amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

57. (Previously presented): A method according to claim 52, wherein said polypeptide has at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

58. (Previously presented): A method according to claim 52, wherein said enzyme preparation is obtained by a process comprising:

- (i) culturing a host cell transformed with the nucleic acid molecule comprising the sequence set forth in Figures 23A-C and SEQ ID NO: 34; and
- (ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

59. (Previously presented): A method according to claim 52, wherein said enzyme preparation is obtained by a process comprising:

- (i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 95% identity to the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and
- (ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

60. (Previously presented): A method according to claim 52, wherein said enzyme preparation is obtained by a process comprising:

- (i) culturing a host cell transformed with the nucleic acid sequence encoding amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and
- (ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

61. (Previously presented): A method according to claim 52, wherein said enzyme preparation is obtained by a process comprising:

- (i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and
- (ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

62. (Original): A method according to claim 52, wherein said polypeptide is isolated and essentially homogenous.

63. (Previously presented): A method according to claim 52, wherein said enzyme preparation comprises at least one cellulase of a fungal species belonging to a fungal genus selected from the group consisting of *Melanocarpus* and *Myriococcum*.

64. (Previously presented): A method of claim 63, wherein the fungal species is *Melanocarpus albomyces*, *Myriococcum albomyces* or *Myriococcum* sp. species represented by CBS 687.95.

65. (Previously presented): A method of claim 64, wherein the fungus is *Melanocarpus albomyces*, *Myriococcum albomyces* CBS 685.95 or *Myriococcum* sp. CBS 687.95.

66. (Original): A method according to claim 52, wherein the enzyme preparation is liquid.

67. (Original): A method according to claim 52, wherein the enzyme preparation is dry.

68. (Original): A method according to claim 52, wherein the fabric or garments is denim.

69. (Original): A method according to claim 52, wherein the enzyme preparation further comprises a surface active agent.

70. (Previously presented): A method for biofinishing comprising adding an enzyme preparation comprising a polypeptide having cellulase activity to textile materials such as fabrics, garments or yarns, wherein said polypeptide is selected from the group consisting of:

- (i) a polypeptide comprising the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35,
- (ii) a polypeptide having at least 95% identity to the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35,
- (iii) a polypeptide comprising the amino acid sequence encoded by the DNA insert contained in DSM 11026, DSM 11013, or DSM 11011,
- (iv) a polypeptide comprising amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and
- (v) a polypeptide having at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

71. (Previously presented): A method according to claim 70, wherein said polypeptide comprises the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

72. (Previously presented): A method according to claim 70, wherein said polypeptide has at least 95% identity to the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

73. (Previously presented): A method according to claim 70, wherein said polypeptide comprises the amino acid sequence encoded by the DNA insert contained in DSM 11026, DSM 11013, or DSM 11011.

74. (Previously presented): A method according to claim 70, wherein said polypeptide comprises amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

75. (Previously presented): A method according to claim 70, wherein said polypeptide has at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

76. (Previously presented): A method according to claim 70, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid molecule comprising the sequence set forth in Figures 23A-C and SEQ ID NO: 34; and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

77. (Previously presented): A method according to claim 70, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 95% identity to the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

78. (Previously presented): A method according to claim 70, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid sequence encoding amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

79. (Previously presented): A method according to claim 70, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

80. (Original): A method according to claim 70, wherein said polypeptide is isolated and essentially homogenous.

81. (Previously presented): A method according to claim 70, wherein said enzyme preparation comprises at least one cellulase of a fungal species belonging to a fungal genus selected from the group consisting of *Melanocarpus* and *Myriococcum*.

82. (Previously presented): A method of claim 81, wherein the fungal species is *Melanocarpus albomyces*, *Myriococcum albomyces* or *Myriococcum* sp. species represented by CBS 687.95.

83. (Previously presented): A method of claim 82, wherein the fungus is *Melanocarpus albomyces*, *Myriococcum albomyces* CBS 685.95, or *Myriococcum* sp. CBS 687.95.

84. (Original): A method according to claim 70, wherein the enzyme preparation is liquid.

85. (Original): A method according to claim 70, wherein the enzyme preparation is dry.

86. (Original): A method according to claim 70, wherein the textile materials are manufactured of natural cellulose containing fibers or manmade cellulose containing fibers or are mixtures thereof.

87. (Original): A method according to claim 70, wherein the textile materials are blends of synthetic fibers and cellulose containing fibers.

88. (Original): A method according to claim 70, wherein the enzyme preparation further comprises a surface active agent.

89. (Previously presented): A method for treating wood-derived pulp or fiber, comprising adding an enzyme preparation comprising a polypeptide having cellulase activity to wood-derived mechanical or chemical pulp or secondary fiber, wherein said polypeptide is selected from the group consisting of:

- (i) a polypeptide comprising the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35,
- (ii) a polypeptide having at least 95% identity to the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35,

- (iii) a polypeptide comprising the amino acid sequence encoded by the DNA insert contained in DSM 11026, DSM 11013, or DSM 11011,
- (iv) a polypeptide comprising amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and
- (v) a polypeptide having at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

90. (Previously presented): A method according to claim 89, wherein said polypeptide comprises the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

91. (Previously presented): A method according to claim 89, wherein said polypeptide has at least 95% identity to the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

92. (Previously presented): A method according to claim 89, wherein said polypeptide comprises the amino acid sequence encoded by the DNA insert contained in DSM 11026, DSM 11013, or DSM 11011.

93. (Previously presented): A method according to claim 89, wherein said polypeptide comprises amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

94. (Previously presented): A method according to claim 89, wherein said polypeptide has at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

95. (Previously presented): A method according to claim 89, wherein said enzyme preparation is obtained by a process comprising:

- (i) culturing a host cell transformed with the nucleic acid molecule comprising the sequence set forth in Figures 23A-C and SEQ ID NO: 34; and
- (ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

96. (Previously presented): A method according to claim 89, wherein said enzyme preparation is obtained by a process comprising:

- (i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 95% identity to the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and
- (ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

97. (Previously presented): A method according to claim 89, wherein said enzyme preparation is obtained by a process comprising:

- (i) culturing a host cell transformed with the nucleic acid sequence encoding amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and
- (ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

98. (Previously presented): A method according to claim 89, wherein said enzyme preparation is obtained by a process comprising:

- (i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and
- (ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

99. (Original): A method according to claim 89, wherein said polypeptide is isolated and essentially homogenous.

100. (Previously presented): A method according to claim 89, wherein said enzyme preparation comprises at least one cellulase of a fungal species belonging to a fungal genus selected from the group consisting of *Melanocarpus* and *Myriococcum*.

101. (Previously presented): A method of claim 100, wherein the fungal species is *Melanocarpus albomyces*, *Myriococcum albomyces* or *Myriococcum* sp. species represented by CBS 687.95.

102. (Previously presented): A method of claim 101, wherein the fungus is *Melanocarpus albomyces*, *Myriococcum albomyces* CBS 685.95 or *Myriococcum* sp. CBS 687.95.

103. (Original): A method according to claim 89, wherein the enzyme preparation is liquid.

104. (Original): A method according to claim 89, wherein the enzyme preparation is dry.

105. (Original): A method according to claim 89, wherein the enzyme preparation further comprises a surface active agent.

106. (Previously presented): A method for improving the quality of animal feed, comprising treating plant material with an enzyme preparation comprising a polypeptide having cellulase activity, wherein said polypeptide is selected from the group consisting of:

(i) a polypeptide comprising the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35,

- (ii) a polypeptide having at least 95% identity to the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35,
- (iii) a polypeptide comprising the amino acid sequence encoded by the DNA insert contained in DSM 11026, DSM 11013, or DSM 11011,
- (iv) a polypeptide comprising amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and
- (v) a polypeptide having at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

107. (Previously presented): A method according to claim 106, wherein said polypeptide comprises the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

108. (Previously presented): A method according to claim 106, wherein said polypeptide has at least 95% identity to the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

109. (Previously presented): A method according to claim 106, wherein said polypeptide comprises the amino acid sequence encoded by the DNA insert contained in DSM 11026, DSM 11013, or DSM 11011.

110. (Previously presented): A method according to claim 106, wherein said polypeptide comprises amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

111. (Previously presented): A method according to claim 106, wherein said polypeptide has at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35.

112. (Previously presented): A method according to claim 106, wherein said enzyme preparation is obtained by a process comprising:

- (i) culturing a host cell transformed with the nucleic acid molecule comprising sequence set forth in Figures 23A-C and SEQ ID NO: 34; and
- (ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

113. (Previously presented): A method according to claim 106, wherein said enzyme preparation is obtained by a process comprising:

- (i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 95% identity to the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and
- (ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

114. (Previously presented): A method according to claim 106, wherein said enzyme preparation is obtained by a process comprising:

- (i) culturing a host cell transformed with the nucleic acid sequence encoding amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and
- (ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

115. (Previously presented): A method according to claim 106, wherein said enzyme preparation is obtained by a process comprising:

- (i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 95% identity to amino acids 23-452 of the amino acid sequence set forth in Figures 23A-C and SEQ ID NO: 35; and
- (ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

116. (Original): A method according to claim 106, wherein said polypeptide is isolated and essentially homogenous.

117. (Previously presented): A method according to claim 106, wherein said enzyme preparation comprises at least one cellulase of a fungal species belonging to a fungal genus selected from the group consisting of *Melanocarpus* and *Myriococcum*.

118. (Previously presented): A method of claim 117, wherein the fungal species is *Melanocarpus albomyces*, *Myriococcum albomyces* or *Myriococcum* sp. species represented by CBS 687.95.

119. (Previously presented): A method of claim 118, wherein the fungus is *Melanocarpus albomyces*, *Myriococcum albomyces* CBS 685.95 or *Myriococcum* sp. CBS 687.95.

120. (Original): A method according to claim 106, wherein the enzyme preparation is liquid.

121. (Original): A method according to claim 106, wherein the enzyme preparation is dry.

122. (Previously presented): A method according to claim 106, wherein the enzyme preparation further comprises a surface active agent.